CITY OF PINOLE

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February 1, 2012

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California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114

Dear Mr. Wolfe and Ms. Creedon:

Enclosed is the City of Pinole's Short-Term Trash Reduction Plan submitted in accordance with Provision C.10.a. in NPDES Permit No. CAS612008 issued by the San Francisco Bay Regional Water Quality Control Board, and/or NPDES Permit No. CA0083313 issued by the Central Valley Regional Water Quality Control Board.

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Sincerely,

Dean Allison
Public Works Director, City of Pinole

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Baseline Trash Load and Short-Term Trash Load Reduction Plan

Submitted by:

City of Pinole, 2131 Pear Street, Pinole CA 94564-1774

In compliance with Provisions C.10.a(i) and C.10.a(ii) of Order R2-2009-0074

2/01/2012

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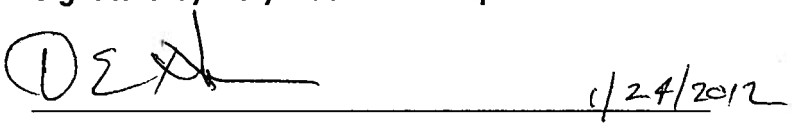
City of Pinole
SHORT-TERM TRASH LOAD REDUCTION PLAN

CERTIFICATION STATEMENT

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature by Duly Authorized Representative:



1/24/2012

Dean Allison — Date
Public Works Director

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ABBREVIATIONS

BASMAA	Bay Area Stormwater Management Agencies Association
BID	Business Improvement District
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CASQA	California Stormwater Quality Association
CDS	Continuous Deflection Separator
CEQA	California Environmental Quality Act
CY	Cubic Yards
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
GIS	Geographic Information System
MRP	Municipal Regional Stormwater NPDES Permit
MS4	Municipal Separate Storm Sewer System
NGO	Non-Governmental Organization
NPDES	National Pollutant Discharge Elimination System
Q	Flow
SFRWQCB	San Francisco Regional Water Quality Control Board
SWRCB	State Water Resource Control Board
TMDL	Total Maximum Daily Load
USEPA	United States Environmental Protection Agency
Water Board	San Francisco Regional Water Quality Control Board
WDR	Waste Discharge Requirements

PREFACE

This Baseline Trash Load and Short-Term Trash Load Reduction Plan (Plan) is submitted in compliance with provision C.10.a(i) and C.10.a(ii)of the Municipal Regional Stormwater NPDES Permit (MRP) for Phase I communities in the San Francisco Bay (Order R2-2009-0074). This Plan was developed using a regionally consistent format developed by the Bay Area Stormwater Management Agencies Association (BASMAA). Based on new information that becomes available during the implementation of this Short-Term Plan (e.g., revisions to baseline loading estimates or load reduction credits of quantification formulas), the City of Pinole may chose to amend or revise this Plan. If revisions or amendments are necessary, a revised Short-Term Plan will be submitted to the Water Board via the City of Pinole's annual reporting process.

Please Note: This Baseline Trash Load and Short-Term Trash Load Reduction Plan template and guidance was prepared to assist cities and counties (i.e., Permittees) subject to requirements in provision C.10.a.i of the Municipal Regional Stormwater NPDES Permit (MRP) for Phase I communities in the San Francisco Bay (Order R2-2009-0074). The template and guidance are intended to provide Permittee's with a format for developing their Short-Term Plans and submitting to the San Francisco Bay Regional Water Quality Control Board by February 1, 2012 in compliance with MRP provision C.10.a.i. The template provides a mechanism to link the results of the *Trash Baseline Generation Rates Project* and the *Trash Load Reduction Tracking Method*, each coordinated by Bay Area Stormwater Management Agencies Association (BASMAA). The use of this document and associated guidance are done so under the discretion of each Permittee.

1.0 INTRODUCTION

The Municipal Regional Stormwater NPDES Permit for Phase I communities in the San Francisco Bay (Order R2-2009-0074), also known as the Municipal Regional Permit (MRP), became effective on December 1, 2009. The MRP applies to 76 large, medium and small municipalities (cities, towns and counties) and flood control agencies in the San Francisco Bay Region, collectively referred to as Permittees. Provision C.10 of the MRP (Trash Load Reduction) requires Permittees to reduce trash from their Municipal Separate Storm Sewer Systems (MS4s) by 40 percent before July 1, 2014.

Required submittals to the San Francisco Bay Regional Water Quality Control Board (Water Board) by February 1, 2012 under MRP provision C.10.a (Short-Term Trash Loading Reduction Plan) include:

1. (a) Baseline trash load estimate, and (b) description of the methodology used to determine the load level.
2. A description of the Trash Load Reduction Tracking Method that will be used to account for trash load reduction actions and to demonstrate progress and attainment of trash load reduction levels.
3. A **Short-Term Trash Loading Reduction Plan** that describes control measures and best management practices that will be implemented to attain a 40 percent trash load reduction from its MS4 by July 1, 2014;

This Short-Term Trash Load Reduction Plan (Short-Term Plan) is submitted by the City of Pinole in compliance with the portions of MRP provision C.10.a.i listed as 1a and 3 above. In compliance with 1b, BASMAA submitted a progress report on behalf of Permittees that briefly describes the methodologies used to develop trash baseline loads (BASMAA 2011a). These methods are more fully described in BASMAA (2011b, 2011c). Lastly, the *Trash Load Reduction Tracking Method Technical Report* (BASMAA 2011d) was submitted by BASMAA on behalf of Permittees in compliance with submittal 2 described above. The Baseline Loading Rates and Tracking Method projects are briefly described below.

Baseline Trash Generation Rates Project

Through approval of a BASMAA regional project, Permittees agreed to work collaboratively to develop a regionally consistent method to establish baseline trash loads from their MS4s. The project, also known as the *BASMAA Baseline Trash Generation Rates Project* assists Permittees in establishing a baseline to demonstrate progress towards MRP trash load reduction goals (i.e., 40 percent). The intent of the project was to provide a scientifically sound method for developing (default) baseline trash generation rates that can be adjusted, based on Permittee/site specific conditions; and used to develop baseline loading rates and loads. Baseline loads form the reference point for comparing trash load reductions achieved through control measure implementation.

Baseline trash loading rates are quantified on a volume per unit area basis and based on factors that significantly affect trash generation (e.g., land use, population density, and economic profile). The method used to the establish baseline trash loads for each Permittee builds off “lessons learned” from previous trash loading studies conducted in urban areas (Allison and Chiew 1995; Allison et al. 1998; Armitage et al. 1998; Armitage and Rooseboom 2000; Lippner et al. 2001; Armitage 2003; Kim et al. 2004; County of Los Angeles 2002, 2004a, 2004b; Armitage 2007). The method is based off a conceptual model developed as an outgrowth of these studies (BASMAA 2011b). Baseline trash loading rates were developed through the quantification and characterization of trash captured in Water Board recognized

full-capture treatment devices installed in the San Francisco Bay area. Methods used to develop trash baseline loading rates are more fully described in BASMAA (2011b, 2011c, and 2012).

Trash Load Reduction Tracking Method Summary

The trash load reduction tracking method, described in the *Trash Load Reduction Tracking Method Technical Report,* assists Permittees in demonstrating progress towards reaching trash load reduction goals defined in the MRP (e.g., 40 percent). The tracking method is based on information gained through an extensive literature review and Permittee experiences in implementing stormwater control measures in the San Francisco Bay Area. The literature review was conducted to evaluate quantification methods used by other agencies to assess control measure effectiveness or progress towards quantitative goals. Results are documented in the *Trash Load Reduction Tracking Method: Technical Memorandum # 1 – Literature Review* (BASMAA 2011d).

Methods attributable to specific trash control measures fall into two categories: 1) trash load reduction quantification formulas; and 2) load reduction credits (BASMAA 2011e). Quantification formulas were developed for those trash control measures that were deemed feasible and practical to quantify load reductions at this time. Load reduction credits were developed for all other control measures included in the methodology development. Both categories of methods assume that as new or enhanced trash control measures are implemented by Permittees, a commensurate trash load reduction will occur. Progress towards load reduction goals will be demonstrated through comparisons to established trash baseline load estimates developed through the BASMAA *Baseline Generation Rates Project*.

Short-Term Trash Load Reduction Plan

The purpose of this Short-Term Plan is to describe the current level of implementation of control measures and best management practices, and identify the type and extent to which new or enhanced control measures and best management practices will be implemented to attain a 40 percent trash load reduction from their MS4 by July 1, 2014. The Short-Term Plan was developed using a template created by BASMAA through a regional project. New and enhanced trash control measures (i.e., Best Management Practices) that Permittees may implement to demonstrate trash load reduction goals are included in Table 1.1. This list was developed collaboratively through the BASMAA Trash Committee, which included participation from Permittee, stormwater program, Water Board and non-governmental organization (NGO) staff. The list of control measures is based on: 1) the potential for Permittees to implement; 2) the availability of information required to populate formulas and develop credits; and 3) the expected benefit of implementation. Load reductions associated with each control measure are demonstrated either through a quantification formula (QF) or credits (CR) described in the *Trash Load Reduction Tracking Method Technical Report* (BASMAA 2011e).

In efforts to reduce trash discharged from MS4s, Permittees may choose to implement control measures that are not included in Table 1.1 or described more fully in BASMAA (2011e). If a Permittee chooses to do so, methods specific to calculating trash load reductions for that control measure would need to be developed. Additionally, at that point, consideration should be given to updating this Short-Term Plan.

Additionally, based on new information that becomes available during the implementation of this Short-Term Plan (e.g., revisions to baseline loading estimates or load reduction credits of quantification formulas), the City of Pinole may amend or revise this Plan. If revisions or amendments are necessary, a

revised Short-Term Plan will be submitted to the Water Board via the City of Pinole's annual reporting process.

Table 1.1. Trash control measures for which load reduction quantification credits or formulas were developed to track progress towards trash load reduction goals.

Load Reduction Credits
Public Education and Outreach Programs
Quantification Formulas
Enhanced Street Sweeping
Full-Capture Treatment Devices
Creek/Channel/Shoreline Cleanups (Volunteer and/or Municipal)

This Short-Term Plan is organized into the following sections:

- Introduction;
- Trash Baseline Load Estimate;
- Load Reduction Calculation Process
- Planned Implementation of New or Enhanced Control Measures;
- Implementation Schedule; and
- References

2.0 BASELINE TRASH LOADING ESTIMATE

Note: *Tables and information presented in this section are subject to change based on the results of a third monitoring event of the BASMAA Baseline Trash Generation Rates Project. Therefore, this section of the Short-Term Plan may be updated with revised trash generation rates, baseline-loading rates, and baseline loads.*

This section provides the estimated annual trash baseline load from the City of Pinole's Municipal Separate Storm Sewer System (MS4). In compliance with Provision C.10.a.ii of the MRP, the City of Pinole worked collaboratively with other MRP Permittees through BASMAA to develop data and the process necessary to establish baseline trash loading estimate from our MS4. The collaborative project was managed through the BASMAA Trash Committee and included a series of steps described in BASMAA (2012) and listed below. The approach was intended to be cost-effective and consistent, but still provide an adequate level of confidence in trash loads from MS4s, while acknowledging that uncertainty in trash loads still exists. The approach entailed the following steps:

1. Conduct literature review;
2. Develop conceptual model;
3. Develop and implement sampling and analysis plan;
4. Test conceptual model;
5. Develop and apply default trash **generation rates** to Permittee effective loading areas;
6. Adjust default trash generation rates based on baseline levels of control measure implementation by the Permittee to develop trash **baseline loading rates**; and,
7. Calculate Permittee-specific annual trash **baseline load**.

Through the collaborative BASMAA project, default baseline trash generation rates (volume per area) were developed for a finite set of categories, based on factors that significantly affect trash loads (e.g., land use). These trash generation rates were then applied to effective loading areas in applicable jurisdictional areas within the City of Pinole. Trash generation rates were then adjusted based on baseline street sweeping, storm drain inlet maintenance, and stormwater pump station maintenance conducted in each applicable area. The sum of the trash loads (i.e., rate multiplied by area) from each effective loading area represents the City of Pinole's baseline trash load from its MS4. A full description of the methods by which trash baseline loads were developed is included in BASMAA (2012a) and is summarized below.

Permittee Characteristics

Incorporated in 1903, the City of Pinole covers 3,309 acres in Contra Costa County, and has a jurisdictional area of 2,115 acres. According to the 2010 Census, it has a population of 18,390, with a population density of 1,354.7 people per square mile, and average household size of 2.79. Of the 18,390 who call the City of Pinole home, 20.5% are under the age of 18, 9.1% are between 18 and 24, 23.5% are between 25 and 44, 31.4% are between 45 and 65, and 15.5% are 65 or older. The City is mostly residential and had a median household income of $62,256 in 2000[1].

Default Trash Generation Rates (Regional Approach)

[1] From the 2000 Census. The median household income for the City of Pinole from the 2010 Census is not currently available.

A set of default trash generation rates was developed via the BASMAA regional collaborative project (BASMAA 2012a). Default generation rates were developed based on a comparison between trash characterization monitoring results, land uses, economic profiles, and other factors that were believed to possibly affect trash generation. Three trash characterization-monitoring events were scheduled via the *Trash Loading Rates Project*. Due to the compliance timeline in the MRP, only two of three trash characterization-monitoring events were used to develop trash generation rates described in BASMAA (2012a) and presented in this section. Following the completion of the third characterization event (Winter 2011/12), this section of the Short-Term Plan may be updated to reflect the most up-to-date trash generation and loading rates available. Trash generation rates based on the results of two of the three characterization events are shown in Table 2-1 for each trash-loading category.

Table 2-1: Regional Default Annual Trash Generation Rates by Land Use Category.

Land Use Category	Generation Rates (Gallons/Acre)
Retail and Wholesale	29.99
High Density Residential	17.04
K-12 Schools	13.14
Commercial and Services/ Heavy, Light and Other Industrial	7.08
Urban Parks	2.14
Low Density Residential	1.25
Rural Residential	0.17

Jurisdictional and Effective Loading Areas

Default trash baseline generation rates presented in Table 2-1 were applied to effective loading areas with **jurisdictional areas** within the City of Pinole. The City of Pinole's jurisdictional areas include all urban land areas within the City of Pinole boundaries that are subject to the requirements in the MRP. Land use areas identified by a combination of the ABAG 2005 land use dataset and Permittee knowledge that were not included within the City's jurisdictional areas include:

- Federal and State of California Facilities and Roads (e.g., Interstates, State Highways, Military Bases, Prisons);
- Roads Owned and Maintained by Contra Costa County;
- Colleges and Universities (Private or Public);
- Non-urban Land Uses (e.g., agriculture, forest, rangeland, open space, wetlands, water);
- Communication or Power Facilities (e.g., PG & E Substations);
- Water and Wastewater Treatment Facilities; and
- Other Transportation Facilities (e.g., airports, railroads, and maritime shipping ports).

Once the City of Pinole's jurisdictional area was delineated, creating a 200-foot buffer around all streets within the City's jurisdictional area developed an effective trash loading area. The purpose of the effective loading area is to eliminate land areas not directly contributing trash to the City's MS4 (e.g.,

large backyards and rooftops). Both the jurisdictional and the effective loading areas for the City of Pinole are presented in Table 2-2.

Table 2-2: Jurisdictional areas and effective loading areas in the City of Pinole by land use classes identified by ABAG (2005).

Land Use Category	Jurisdictional Area (Acres)	Effective Loading Area (Acres)	% of Effective Loading Area
High Density Residential	272	219	13
Low Density Residential	1,075	1,009	58
Rural Residential	117	50	3
Commercial and Services/ Heavy, Light and Other Industrial	161	107	6
Retail and Wholesale	172	101	6
K-12 Schools	75	26	2
Urban Parks	244	218	13
TOTAL	2,115	1,730	**100%**

Permittee-Specific Baseline Trash Loading Rates

The baseline trash generation and loading rates for the City of Pinole presented in Table 2-3 and Figure 2-1 have not be approved by the City of Pinole. Loading rates and trash generation will be recalculated using updated maps and latest available information.

Regional default trash generation rates developed through the BASMAA regional collaborative project were applied to effective loading areas within the City of Pinole based on identified land uses. These generation rates were then adjusted based on the calculated effectiveness of baseline street sweeping, storm drain inlet maintenance and pump station maintenance implemented by the City. These adjustments were conducted in GIS due to the site specificity of baseline generation rates and baseline control measure implementation. The following sections describe the baseline level of implementation for these three control measures. A summary of trash baseline generation and loading rates for the City of Pinole are provided in Table 2-3 and areas associated with these rates are illustrated in Figure 2-1.

Baseline Street Sweeping

A "baseline" street sweeping program is defined as the sweeping frequency and parking enforcement implemented by the City of Pinole prior to effective date of the MRP. Baseline street sweeping differs from "enhanced" street sweeping, which includes increased parking enforcement and/or sweeping conducted at a frequency greater than baseline ceiling (i.e., once per week for retail land uses and twice per month for all other land uses). The baseline ceiling was created to not penalize implementers of enhanced street sweeping programs prior to the effective date of the MRP. For those Permittees that sweep less frequent than the baseline ceiling, their current sweeping frequency serves as their baseline.

The City of Pinole's baseline street sweeping program includes sweeping most streets in residential areas once per month, most streets in the downtown area once per week, and sweeping most arterials roads twice per month. The City's current street sweeping program is the same as the baseline programs except that arterial roads are swept once per week.

Parking enforcement signs for street sweeping are not posted in the City, and parking enforcement equivalent occurs on some arterial roads and in the downtown area. The estimated trash load reduced via baseline street sweeping is presented in Table 2-3.

Baseline Storm Drain Inlet Maintenance

Within the City, storm drain inlets were cleaned at a baseline level of one time per year prior to the effective date of the MRP. Based on this baseline frequency and the effectiveness rating developed in BASMAA (2012b), the baseline storm drain maintenance program in the City of Pinole has an annual effectiveness rating of 5%. The estimated trash load reduced via baseline storm drain inlet maintenance is presented in Table 2-3.

Baseline Stormwater Pump Station Maintenance

The City of Pinole does not own stormwater pump stations with trash racks.

Baseline Trash Loading Estimate

The estimated baseline trash load from the City of Pinole was calculated as the sum of the loads from the City's effective loading area, adjusted for baseline implementation of street sweeping, storm drain inlet maintenance, and pump station maintenance. The preliminary annual trash baseline load for the City of Pinole is presented in Table 2-3. Preliminary baseline trash loading rates are presented in Figure 2-1 to provide a geographical illustration of areas with estimated low, moderate, high and very high trash loading rates.

Table 2-3: Preliminary annual trash baseline load for the City of Pinole.

Category	Annual Load (Gallons)
Preliminary Generation Trash Load	9,588
Load Removed via Baseline Street Sweeping	3,062
Load Removed via Baseline Storm Drain Inlet Maintenance	326
Load Removed via Baseline Stormwater Pump Station Maintenance	0
Preliminary Trash Baseline Load	**6,200**

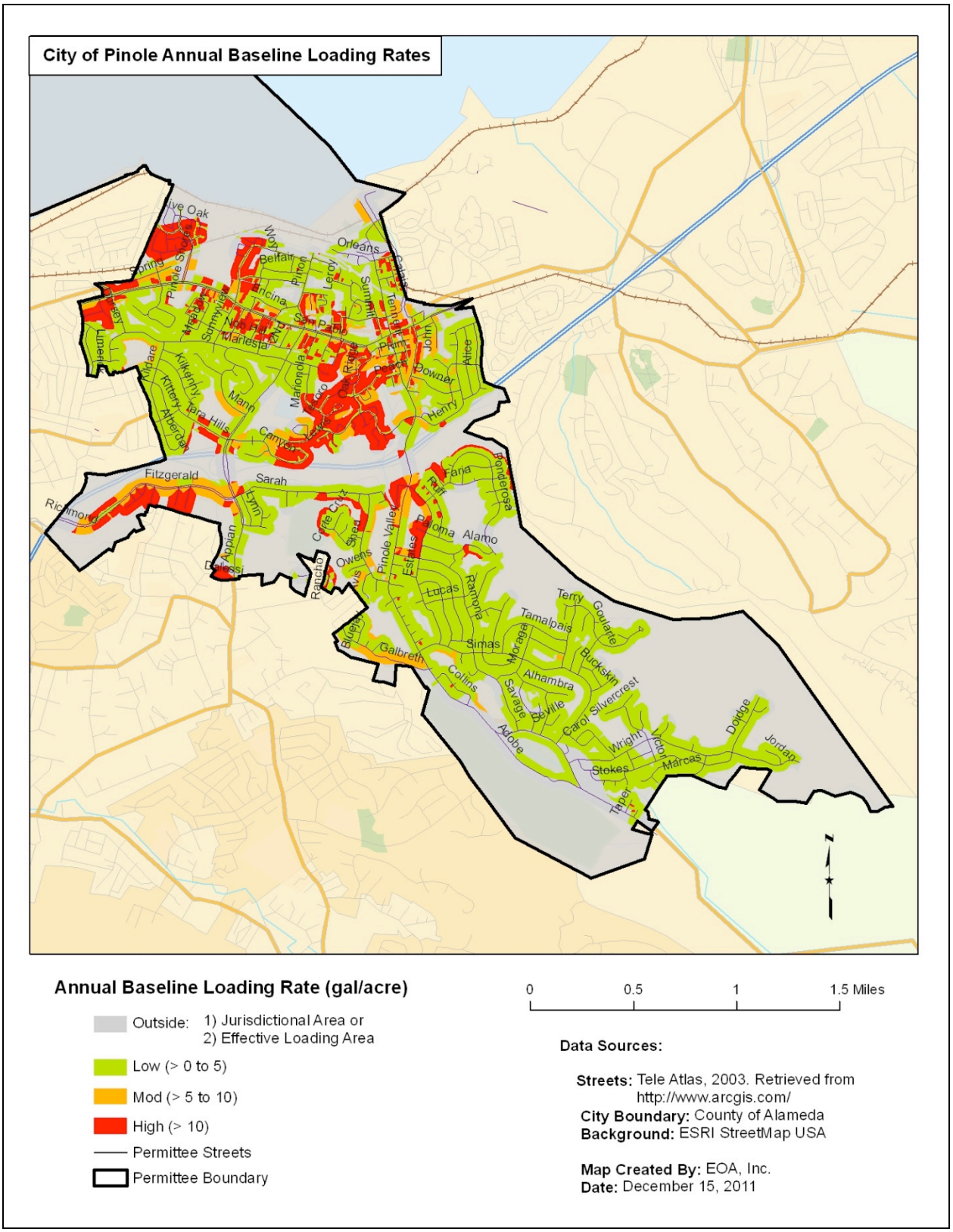


Figure 2-1: Estimated trash baseline loading rates for geographical areas in the City of Pinole. ***THIS MAP IS NOT APPROVED BY THE CITY OF PINOLE – LOADING RATES MAY NOT BE ACCURATE***

3.0 LOAD REDUCTION CALCULATION PROCESS

Using the guiding principles and assumptions described BASMAA (2011e); a stepwise process for calculating trash load reductions was developed collaboratively through BASMAA. This process is fully described in Trash Load Reduction Tracking Method Technical Report (BASMAA 2011e) and is briefly summarized in this section. The process takes into at what point in the trash generation and transport process a trash control measure: 1) prevents trash generation, 2) intercepts trash in the environment prior to reaching a water body, or 3) removes trash that has reached a water body. In doing so, it avoids double counting of trash load reductions associated with specific control measures.

To demonstrate trash load reductions, baseline trash loading rates will be adjusted using the following process:

Step #1: Existing Enhanced Street Sweeping
Step #2: Trash Generation Reduction
Step #3: On-land Interception
Step #4: Trash Interception in the Stormwater Conveyance System
Step #5: Trash Interception in Waterways
Step #6: Comparison to Baseline Trash Load

Reductions calculated in Steps 2 and 5 are assumed to be implemented at a constant rate on an "area-wide" basis. For example, if a new region-wide public education strategy is implemented within the San Francisco Bay area, all Permittees can apply load reduction credits associated with this control measure. In contrast, Steps 1, 3 and 4 are "area-specific" reductions that only apply to specific areas within a Permittee's jurisdiction. Area-specific control measures include full-capture treatment devices and enhanced street sweeping. Area-specific reductions may require the use of a Geographic Information System (GIS) to calculate.

Reductions are generally applied in the sequence as presented in Figure 2-1 and described below, although some reductions may be applied "in-parallel" and calculated during the same sub-step in the process.

Step #1: Existing Enhanced Street Sweeping

Trash load reductions due to existing enhanced street sweeping implemented prior to the effective date of the MRP and conducted at levels above baseline levels are not incorporated into each Permittee's trash baseline load. Therefore, load reductions associated with existing enhanced are accounted for first in the trash load reduction calculation process. Existing enhanced street sweeping includes street sweeping conducted at a frequency greater than **1x/week** for streets within retail land use areas or greater than **2x/month** for streets in all other land use areas. The result of adjustments made to trash baseline loads due to the implementation of existing enhanced street sweeping is a set of **current baseline loading rates** and a **current baseline load**.

Step #2: Trash Generation Reduction Control Measures

Trash generation reduction control measures prevent or greatly reduce the likelihood of trash from being deposited onto the urban landscape. They include the following area-wide control measure:

CR-1: Public Education and Outreach Programs

Load reductions associated with trash generation reduction control measures are applied on an area-wide basis.[2] Therefore, reductions in current baseline loading rates are adjusted uniformly based on the implementation of the control measure and the associated credit claimed.

Baseline loading rate adjustments for all generation reduction controls measures implemented may be applied in-parallel, but should be applied prior to calculating on-land interception measures discussed in Step #3. The result of adjustments to trash baseline loading rates due to the implementation of these enhanced control measures will be a set of **street loading rates**. The **street load** is the volume of trash estimated to enter the environment and available for transport to the MS4 if not intercepted via on-land control measures described in Step #2.

Step #3: On-land Interception Control Measures

Once trash enters the environment, it may be intercepted and removed through the following control measure prior to reaching the stormwater conveyance system:

QF-1: Enhanced Street Sweeping (Area-specific)

Since on-land trash cleanups can affect the amount of trash available to street sweepers, load reductions associated with their implementation will be quantified first, followed by street sweeping enhancements. On-land trash cleanups will be applied as an area-wide reduction and all effective loading rates will be adjusted equally. Enhanced street sweeping, however, is an area-specific control measure and only those effective loading rates associated with areas receiving enhancements will be adjusted. Due to the spatial nature of enhanced street sweeping, GIS may be needed to conduct this step.

The result of adjustments to effective loading rates due to the implementation of these enhanced control measures will be a set of **conveyance system loading rates**. The **conveyance load** is the volume of trash estimated to enter the stormwater conveyance system (e.g., storm drains).

Step #4: Control Measures that Intercept Trash in the MS4

Control measures that intercept trash in the stormwater conveyance system are area-specific. Therefore, they only apply to land areas and associated trash loads reduced. Conveyance system loading rates developed as a result of Step #3 should be adjusted in parallel for the following control measure:

QF-2: Full-Capture Treatment Devices (Area-specific)

[2] The only exception to this statement are load reductions associated with the establishment of Business Improvement Districts (BIDs) or equivalent, which are specific to geographic areas and considered “area-specific”.

Load reductions for this control measure is calculated in parallel because they are applied to independent geographical areas. Reductions from the control measure described in this step are area-specific and may require the use of GIS to calculate a set of **waterway loading rates**. Once waterway loading rates have been determined, a **waterway load** will be developed and used as a starting point for calculating load reductions associated with trash interception in waterways discussed in Step #5.

Step #5: Control Measures that Intercept Trash in Waterways

The load of trash that passes through the stormwater conveyance system without being intercepted may still be removed through interception in waterways.

QF-3: Creek/Channel/Shoreline Cleanups (Volunteer and/or Municipal) (Area-wide)

As this control measure is implemented, load reduction estimates can be calculated in parallel.

Step #6: Comparison to Baseline Trash Load

Applying the four steps described in the processes above will provide an estimated trash load (volume) remaining after trash control measures are implemented. As depicted in the following equation, the relative percent difference between the baseline load and the load remaining after control measures are implemented is the percent reduction that will be used to assess progress towards MRP trash load reduction goals.

$$\frac{\text{Baseline Load} - \text{Remaining Load}}{\text{Baseline Load}} = \% \text{ Reduction}$$

4.0 ENHANCED TRASH CONTROL MEASURES

This section describes the new or enhanced trash control measures planned for implementation by the City of Pinole. The enhanced control measures described are designed to reach a 40% reduction by July 1, 2014. New and enhanced control measures that will be implemented by the City of Pinole include those listed in Table 4.1.

Table 4.1. Trash control measures that will be implemented by the City of Pinole to reach the 40% trash load reduction.

Control Measure
Public Education and Outreach Programs
Enhanced Street Sweeping
Full-Capture Treatment Devices
Creek/Channel/Shoreline Cleanups (Volunteer and/or Municipal)

CR-1: Public Education and Outreach Programs

Permittees in the San Francisco Bay Area have implemented public education and outreach programs to inform residents about stormwater issues relating to pollutants of concern, watershed awareness and pollution prevention. Public education and outreach efforts include developing and distributing brochures and other print media; posting messages on websites and social networking media (Facebook, Twitter etc.), attending community outreach events, and conducting media advertising. In recent years, some municipal agencies have implemented anti-litter campaigns to increase public awareness about the impacts of litter on their communities and water quality; and to encourage the public to stop littering.

Enhanced Level of Implementation

The City of Pinole has implemented the following public education and outreach control measures prior to July 1, 2014. Many of these efforts were actually implemented prior to the official adoption of the MRP but were specifically implemented to meet the requirements of the MRP as adopted. It is for this reason that these efforts have been included in this section of narrative.

Program-wide Outreach

The Clean Water Program spent approximately $530,000, more than any previous year, for PIP activities during the 2009-10 fiscal year. This was supplemented with a grant from the California Integrated Waste Management Board totaling $72,184, for a combined total expenditure of $602,184.

O'Rorke, Inc., has been employed as a professional consultant for outreach activities since October 2008. O'Rorke's experience with public education and outreach efforts in the Bay Area, their local media contacts and creative expertise provided a more technologically savvy outreach via the internet, in addition to traditional media.

The Program launched a Facebook page in fall 2009 (please see http://www.facebook.com/cccleanwater program). The page promotes our six (6) Litter ads, the Volunteer Creek Monitoring Program and provides a forum to post relevant articles to draw attention to stormwater issues. The Program's Facebook page and website are cross-linked.

Approximately 13,000 educational materials and promotional items were distributed in fiscal year 2009/10 to municipalities and the general public. Promotional items included t-shirts displaying the tagline "Litter stops with me", Chico (tote) bags, shammies which educate residents about washing their car at home and native flower seed packets. The Program strives to promote non-toxic, recyclable, native promotional items.

As an active member of BASMAA, the Program participated in a region-wide media campaign that met requirements for Provisions C.7.c. Media Relations – Use of Free Media and C.7.d. - Stormwater Point of Contact. Details are provided in BASMAA's "MRP *Regional Supplement: Training and Outreach for Fiscal Year 2009/2010 Annual Reporting",* submitted separately by BASMAA on behalf of the member agencies.

Accomplishments

C.7.b – Advertising Campaign

Creative Development - The Program developed additional print, online, and outdoor media pieces for the "Fancy...Litter?" campaign based on focus group feedback.

The campaign ran in fiscal year 2009/10. All media featured the new Program tag line "Litter travels but it can STOP with you."

In augmenting the four (4), fifteen (15) second TV vignettes produced in fiscal year 2008/09, the Program developed the following media pieces:

Radio

• Radio spots ran countywide on Metro radio and local Spanish radio stations KSOL and KBRG.

Outdoor / Transit

1. Billboard placed alongside I-680 in Walnut Creek.

2. Premier Panel Billboards ran in East County along Highway 4 in the city of Antioch.

3. Transit ads including Queens, Tails and Interior Cards ran on the West Cat, Tri Delta and County Connection bus lines.

4. BART posters placed in the Richmond, El Cerrito, Orinda, Lafayette, Walnut Creek, Pleasant Hill, and North Concord/Martinez BART stations. *Alternative Media / Out of Home*

TV spots on the Ripple TV in-store network featured the TV vignettes in Noah's Bagels locations in Walnut Creek and Pinole.

TV spots on the Pumptop TV network featured the TV vignettes at gas station TV screens in Oakley, Danville, San Ramon and Pleasant Hill.

Library flyers distributed to many libraries in Contra Costa County and displayed with other promotional materials. *In Store / Other Outdoor* • Star Kart ads ran on shopping carts in Richmond, Martinez, Brentwood, Lafayette, and San Ramon Safeway locations.

Online

• Placecast online ads ran throughout Placecast's network of affiliate websites and were geo-targeted to County residents.

• Google AdWords and Yahoo search ads ran on the Google and Yahoo search engines and were geo-targeted to County residents.

- Facebook online ads ran on Facebook and were geo-targeted to County residents ages eighteen (18) and older.

- Contracostatimes.com ads ran on the Contra Costa Times' website and were geo-targeted to County residents.

Direct Mail

• Letters introducing the Program and suggesting ways to reduce litter were sent to new homeowners in the County, resulting in seventy-four (74) tote bag requests.

Grassroots

- A cyclist riding a recumbent bicycle with attached signage who rode at community events and popular destinations in Pinole, Pittsburg, El Cerrito, Danville, Alamo, Moraga, Concord, and Blackhawk conducted bicycle outreach.

- Grocery store posters translated into Chinese, Spanish and Tagalog, were posted by grocery stores in San Pablo, Richmond, Concord, and Walnut Creek.

Youth

- Zoom Media digital ads ran in bowling alleys in Antioch, Brentwood, Danville and Concord.

- Facebook online ads ran on Facebook and were geo-targeted to County residents under 18.

- Sparknotes.com online ads ran on the Sparknotes online study-aide website and were geo-targeted to County residents.

Percent Reduction from Enhancements

The City of Pinole will receive an 8 percent reduction credit for implementing specific enhanced control measures described in *Enhanced Level of Implementation* section above. The 8 percent reduction credit will be applied to the City of Pinole's baseline trash load. This percent reduction credit is consistent with methods presented in the BASMAA (2011e). A summary of all load reductions anticipated through the implementation of this plan are included in Section 4.0.

QF-1: Enhanced Street Sweeping

Street sweeping is conducted by most, if not all, Bay Area municipalities to remove trash and debris that collect in the gutters at the edge of streets. Parked cars and large storms that produce significant runoff can impact the effectiveness of street sweepers. However, increasing parking enforcement or more frequent street sweeping (as compared to the frequency of storm events) may increase the trash load reduced to MS4s. Permittees who choose to enhance street sweeping may do so to demonstrate trash load reductions to their MS4s and progress towards trash load reduction goals required by the MRP.

Baseline Level of Implementation

The baseline trash load described in Section 2.0 incorporates the trash load reductions due to baseline street sweeping. The City of Pinole's baseline street sweeping program includes sweeping at a frequency of 4 times per month on average in retail areas and once (1) a month on average in all other areas. Sweeping within Pinole's jurisdiction covers all of the residential areas once in a one-month period. The main arteries of the City; Pinole Valley Road/Tennant Avenue, Appian Way, Fitzgerald Drive and San Pablo Avenue are swept once a week. These areas cover more than just retail areas. It is because of this fact that the City has an Enhanced Level of Implementation under "Existing Enhanced Level" as provided via GIS Analysis performed by EOA on behalf of BASMAA. See below under the Enhanced Level.

Enhanced Level of Implementation

Enhancements to street sweeping frequencies and parking enforcement (or equivalent measures) control measures will be used to calculate loads reduced from enhanced street sweeping, consistent with the trash load reduction tracking method (BASMAA 2011e). A list of planned enhancements is included in Table QF-3-1 and illustrated in Figure QF-3-1. Enhancements include:

Increased sweeping frequency from the Baseline Level

Baseline frequency for all of the non-retail areas of the City is twice a month. Pinole currently has arterial routes that canvas other land use areas and these routes are swept once a week. Based on this increased frequency from the baseline level, the City gets credit under the Existing Enhanced Level of Implementation.

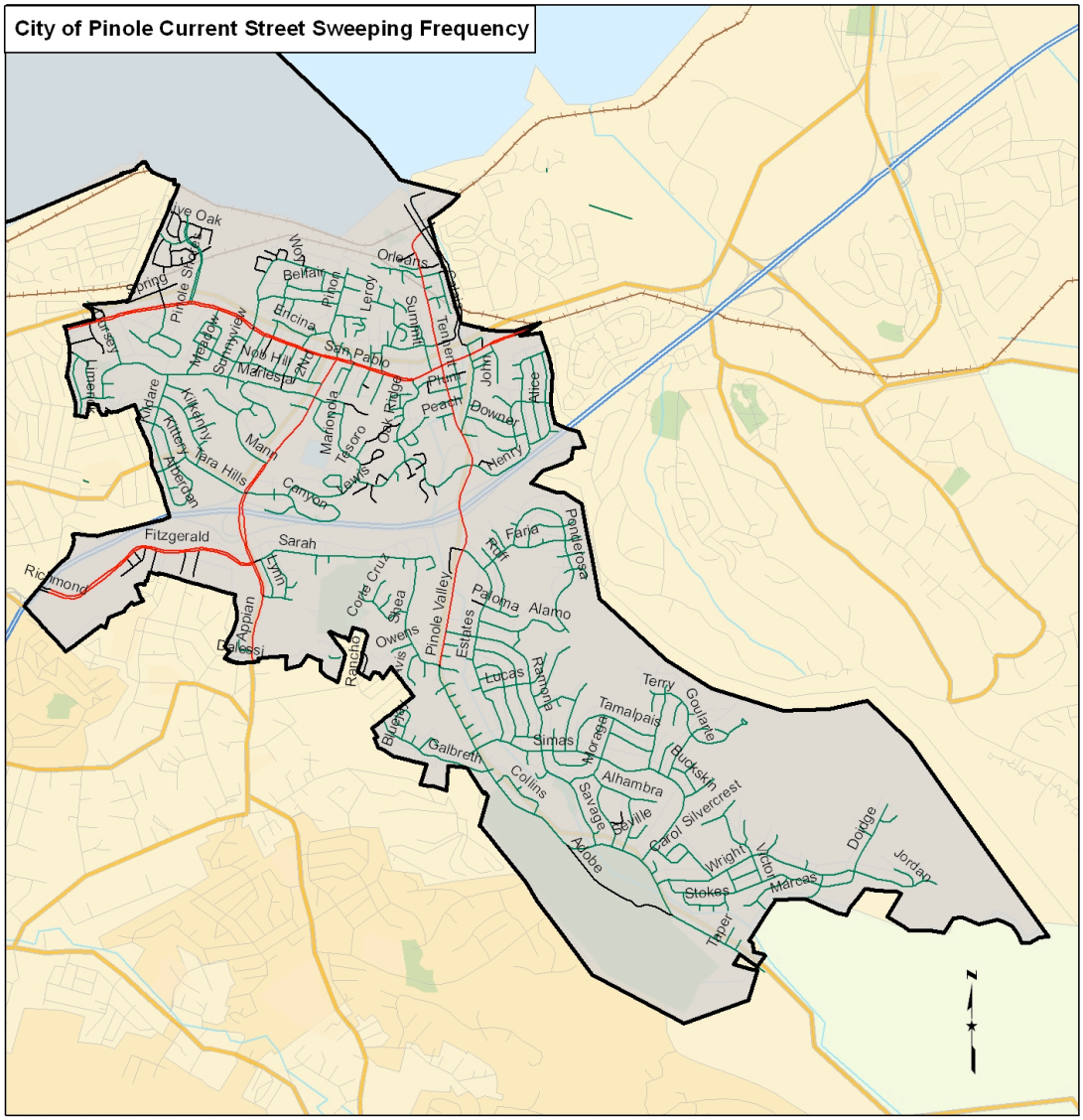
Percent Reduction from Enhancements

The total estimated annual volume of trash that will be reduced by July 1, 2014 as a result of enhanced street sweeping is 54.54 cubic feet. As described in Trash Load Reduction Summary Table included in Section 4, this volume is equal to approximately a 6.6 percent reduction in the baseline trash load to urban creeks from the municipal separate storm sewer

Table QF-1-1. Planned enhanced street sweeping program in the City of Pinole.

Route ID	Approximate Length Swept (curb miles)	Baseline		Enhanced	
		Frequency	Parking Enforcement	Frequency	Parking Enforcement
Red Route-Weekly	10-15	Once a month	None	Once a week	None

Figure QF-1-1: Planned enhanced street sweeping program in the City of Pinole.



QF-2: Full-Capture Treatment Devices

As defined by the Municipal Regional Stormwater Permit (MRP), a full-capture system or device is any single device or series of devices that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one-year, one-hour, storm in the sub-drainage area. A list of the full-capture systems and devices recognized by the San Francisco Bay Regional Water Quality Control Board (Water Board) is included in *Trash Load Reduction Tracking Method Report* (BASMAA 2011e). Trash loads reduced via publically or privately owned and operated devices within a Permittee's jurisdictional area that have been recognized by the Water Board as full-capture may be used to demonstrate attainment of trash load reduction goals.

Baseline Level of Implementation

Prior to adoption of the MRP, some Permittees installed and maintained full capture devices. To avoid penalizing these early implementers, an applicable control measure implemented within a Permittee's jurisdictional area prior to the effective date of the MRP will be credited equally to a control measure implemented after the effective date. Therefore, the baseline level of implementation is no trash full-capture devices have been installed.

Enhanced Level of Implementation

A total of 32 trash full-capture treatment devices have been installed in the City of Pinole prior to July 1, 2014. A list of these full-capture devices is included in Table QF-2-1. All devices listed within this table are enhanced trash control measures. Table QF-2-1 also includes the area treated and the calculated trash load reduced from each full-capture treatment device. These calculations are consistent with the approach described in the *Trash Load Reduction Tracking Method Report* (BASMAA 2011e).

Percent Reduction from Enhancements

The total estimated annual volume of trash that will be reduced by July 1, 2014 as a result of implementing full capture devices is 79.27 cubic feet. This volume is equal to approximately an 8.9 percent reduction in the baseline trash load to urban creeks from the municipal separate storm sewer system (MS4) owned and operated by the City of Pinole. Both values provided within this section are included in Trash Load Reduction Summary Table included in Section 4.

City of Pinole

Table QF-2-1. Trash full-capture treatment devices within the jurisdictional boundaries of the City of Pinole that are planned for installation by July 1, 2014.

Device ID	Public or Private	Device Name	Location (Cross Streets)	Installation Date/Anticipated Installation Date	Total Area Treated (acres)	Trash Load Reduced
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	Pinole Valley Rd. 37.990815, -122.285313	11/15/2011	1.65	22.4 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	Pinole Valley Rd. 37.992432, -122.285528	11/15/2011	1.65	22.4 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	Pinole Valley Rd. 37.993818, -122.285716	11/15/2011	1.65	22.4 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	Pinole Valley Rd. 37.995517, -122285764	11/15/2011	1.65	22.4 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	Pinole Valley Rd. 37.996499, -122.285585	11/15/2011	1.65	22.4 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	Pinole Valley Rd. 37.995885, -122.285495	11/15/2011	1.65	22.4 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	Pinole Valley Rd. 37.995458, -122.285555	11/15/2011	1.65	22.4 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	Pinole Valley Rd. 37.993826, -122.285503	11/15/2011	1.65	22.4 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	Pinole Valley Rd. 37.992939, -122.285372	11/15/2011	1.65	22.4 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	Pinole Valley Rd. 37.992510, -122.285321	11/15/2011	1.65	22.4 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004912, -122.310019	1/11/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004977, -122.309833	1/17/201	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004977, -122.309505	1/11/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.005062, -122.308044	1/11/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.005029, -122.307135	1/11/2012	1.65	16.40 gallons

REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004568, -122.305203	1/11/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004414, -122.305041	1/17/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004327, -122.304224	1/12/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004343, -122.304217	1/12/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004335, -122.304108	1/12/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004349, -122.304102	1/12/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004363, -122.304067	1/12/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004819, -122.305242	1/17/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.005228, -122.309253	1/17/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004599, -122.311761	1/17/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.003883, -122.313636	1/17/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.003433, -122.3146	1/12/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.002945, -122.315798	1/12/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.002807, -122.316125	1/12/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.004806, -122.305004	1/12/2012	1.65	16.40 gallons
REM-1c	*Public*	*TR Triton BFTG (Drop Inlet)*	San Pablo Ave. 38.005059, -122.306061	1/12/2012	1.65	16.40 gallons

QF-3: Creek/Channel/Shoreline Cleanups

Creek/channel/shoreline cleanups have been successful in removing large amounts of trash from San Francisco Bay area creeks and waterways; and increasing citizen's awareness of trash issues within their communities. Creek/channel/shoreline cleanups are conducted as single-day events or throughout the year by volunteers and municipal agencies. Since volunteers and municipal agencies have the common goal of clean creeks and waterways, their efforts sometimes overlap. This is apparent with some municipal agencies using volunteers to help assess and clean designated trash hot spots during single-day volunteer events.

Baseline Level of Implementation

Trash reduced via creek/channel/shoreline cleanups was not accounted for in the City of Pinole's baseline trash load described in Section 2.0. Therefore, implementation of any of the control measures described in this section is considered to be an enhancement and can be used to demonstrate progress towards load reduction goals.

Enhanced Level of Implementation

Prior to July 1, 2014, the City of Pinole will conduct MRP-required[3] and the following non MRP-required creek/channel/shoreline cleanups[4] listed below. Both types of cleanups will be conducted each year and the volume of trash removed will be tracked to demonstrate trash loads reduced.

MRP Required Enhanced Effort

- Hot Spot Assessment – The City of Pinole used Pinole Creek as the location for the Hot Spot Assessment. During the initial assessment 1 cubic yard of material was collected and categorized.

Non-MRP Required Enhanced Effort

Enhanced efforts within the City of Pinole include, but are not limited to the following list of activities:

- Coastal Clean-up Day – Creek and Shoreline Clean-up
- East Bay Regional Park Shoreline Clean-up
- Creek Cleanup - City staff began targeted trash collection/debris removal and tracking from the creeks in 2002. In the last pre-MRP year, 20 yards were collected.

Program Level Trash Specific Efforts

The following trash reduction related activities were conducted as a group during FY 2009/2010:

- Formation of the MOC, and attendance at monthly MOC meetings to discuss and

[3] Creek/channel/shoreline cleanups conducted in accordance with Permit Provision C.10.b.
[6]All "other" creek/channel/shoreline cleanups conducted by a municipality that are not required by Provision C.10.b.

coordinate program-wide trash reduction activities;

- Participation in BASMAA's Trash / MOC meetings to coordinate regional trash reduction activities; and,
- Coordination and submittal of municipal trash hot spot assessment and cleanup information to the Water Board on July 1, 2010.

The following is a detailed account of each activity listed above:

MOC Meetings and Activities

The MOC was created in October 2010 as a formal monthly committee to address C.2, C.4, C.5, C.9, C.10 and C.13 of the MRP. An agenda and minutes are created for each meeting and posted to the Program website. During FY 2009/2010, trash reduction activities were focused on trash hot spot selection and cleanups. The MOC was instrumental in developing guidance materials detailing a consistent protocol for trash hot spot selection, identification, cleanup and assessment, as well as photo documentation. The trash hot spot protocol was distributed to the co-permittees with a detailed schedule of when their hot spot work was to be completed. Each MOC meeting guided and assisted the co-permittees with this trash hot spot work. The MOC also provided updates regarding the BASMAA Trash / MOC, and provided comments on the work done by BASMAA to develop a baseline trash loading and tracking methodology. More work will occur during FY 2010/2011.

BASMAA's Trash / MOC

BASMAA created the Trash / MOC to coordinate regional efforts for trash reduction. To date the Trash / MOC has assisted members with development of a trash hot spot selection and assessment protocol, which the Program used as an example to create its own trash hot spot submittal format. Other work planned for BASMAA's Trash / MOC includes developing a baseline trash loading and tracking methodology. BASMAA hopes to create a trash baseline loading calculation that will provide a consistent formula for all permittees. BASMAA has just begun this effort, which continues during FY 2010/2011.

Trash Hot Spot Submittal

With guidance materials from the BASMAA Trash / MOC, the Contra Costa co- permittees selected, assessed, and cleaned their chosen trash hot spots during FY 2009/2010 ahead of the requirements in Provision C.10 of the MRP. Program staff gathered all trash hot spot information, including trash hot spot locations, trash assessment data, and photo documentation from all co-permittees.

Percent Reduction from Enhancements

The total estimated annual volume of trash that will be reduced by July 1, 2014 as a result of implementing creek/channel/shoreline cleanups is 156.13 cubic feet. This volume is equal to approximately a 19 percent reduction in the baseline trash load to urban creeks from the municipal separate storm sewer system (MS4) owned and operated by the City of Pinole. Both values provided within this section are included in Trash Load Reduction Summary Table included in Section 4.

5.0 SUMMARY OF TRASH CONTROL MEASURE ENHANCEMENTS

The City of Pinole is committed to reducing the potential for trash impacts in local water bodies in the San Francisco Bay Area. The planned enhanced trash control measures described in Section 4.0 are also listed in Table 5-1. The enhancements are intended to comply with the 40% trash load reduction goal in MRP provision C.10.

Summary List of Activities

The City of Pinole plans to use the following "Trash Generation Reduction" as well as "Trash Interception" methods presented in this plan to achieve the required trash reduction percentage. The City will also continue to work with the Program on the Area-wide level to achieve the Education and Outreach goals as presented in this plan.

1. Installation of 32 Full Trash Capture devices along Pinole Valley Road and San Pablo Avenue.
2. Extensive Public Outreach and Education efforts at both the Program and City levels. Multiple media channels are used to reach various audiences.
3. Coastal Cleanup Day as well as participation in East-Bay Regional Parks shoreline cleanup.
4. Litter Pick Up and Control; this a call-out service provided by the City to pick-up illegally dumped loads or trash spills before they can reach waterways.
5. Creek Cleanup - City staff began specific trash collection and debris removal and tracking from the creeks.
6. Enhanced trash removal through existing efforts in street sweeping frequencies of non-retail areas within the City.

Table 5-1. Planned enhanced trash control measure implementation within the jurisdictional boundaries of the City of Pinole and associated trash loads reduced.

Trash Control Measure	Summary Description of Control Measure	% Reduction (Credits)	Trash Load Reduced	Cumulative % Reduction (Compared to Baseline)
Public Education and Outreach Programs (CR-3)	**Outreach and Education through multiple channels.**	**8**	**479**	**8**
Enhanced Street Sweeping (QF-1) – (Existing and Future Enhanced)	Existing Enhanced Sweeping Efforts	**NA**	408	11.2
Full-capture Treatment Devices (QF-2)	**32 Full Trash Capture devices have been installed in the City of Pinole.**	**NA**	**553**	**23.2**
Creek/Channel/Shoreline Cleanups (Volunteer and/or Municipal) (QF-3)	**Hot Spot Trash Removal, Coastal Cleanup Day**	**NA**	**1168**	**42.0**

5.1 Annual Reporting and Progress Towards Trash Load Reduction Goal(s)

Consistent with MRP Provision C.10.d (i), the City of Pinole intends to report on progress towards MRP trash load reduction goals on an annual basis beginning with the fiscal year 2011-2012 Annual Report. Annual reports will include:

1. A brief summary of all enhanced trash load reduction control measures implemented to-date;
2. The dominant types of trash likely removed via these control measures;
3. Total trash loads removed (credits and quantifications) via each control measure implementation; and
4. A summary and quantification of progress towards trash load reduction goals.

Similar to other MRP provision, annual reporting formats will be consistent region-wide. Annual reports are intended to provide a summary of control measure implementation and demonstrate progress toward MRP trash reduction goals. For more detailed information on specific control measures, the City of Pinole will retain supporting documentation on trash load reduction control measure implementation. These records should have a level of specificity consistent with the trash load reduction tracking methods described in the *BASMAA Trash Load Reduction Tracking Method Technical Report* (BASMAA 2011e).

5.2 Considerations of Uncertainties

Baseline trash loading and load reduction estimates are based on the best available information at the time this Short-Term Plan was developed. As with any stormwater loading and reduction estimate, a number of assumptions were used during calculations and therefore uncertainty is inherent in the baseline trash load estimate presented in Section 2.0 and the load reduction estimate presented in this section. For these reasons, the baseline loading estimates presented in this plan should be considered first-order estimates. During the implementation of this Short-Term Plan and subsequent plans, additional information may become available to allow the calculation of a more robust baseline load.

6.0 IMPLEMENTATION SCHEDULE

Implementation of enhanced trash control measures by the City of Pinole is currently planned to occur in a timeframe consistent with MRP requirements. A preliminary implementation schedule for all planned enhancements is described in Table 6-1. This schedule provides a timeframe for reducing trash discharged from the City of Pinole's MS4 by 40%.

Based on new information that becomes available during the implementation of this Short-Term Plan (e.g., revisions to baseline loading estimates or load reduction credits of quantification formulas), the City of Pinole may chose to amend or revise this Plan and/or the associated implementation schedule. If revisions or amendments occur, a revised Short-Term Plan and implementation schedule will be submitted to the Water Board via the City of Pinole's annual reporting process.

Table 6-1. Preliminary implementation schedule for enhanced trash control measures in the City of Pinole.

Trash Control Measure	Beginning Date of Implementation
Public Education and Outreach Programs (CR-1)	FY 2010-2011
Enhanced Street Sweeping (QF-1)	FY 2010-2011
Full-capture Treatment Devices (QF-2)	FY 2011-2012
Creek/Channel/Shoreline Cleanups (Volunteer and/or Municipal) (QF-3)	FY 2010-2011

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